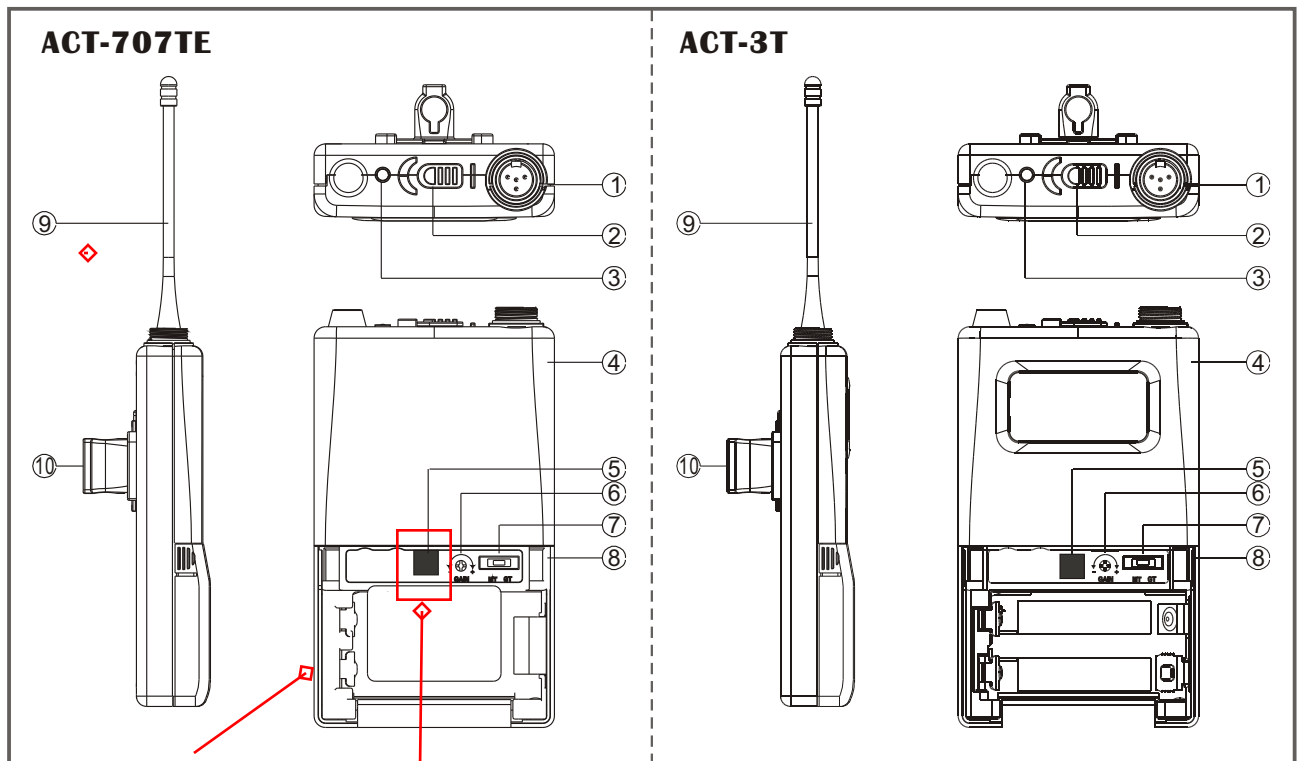


**Follow the "pairing up" instructions in the
MRM70 Receiver manual included below.**

BODYPACK TRANSMITTER

Operating Manual

1. Parts Names And Functions



This bodypack transmitter is shown with the battery door open.
(Actually it is shown with the battery door removed.)

(Fig. 1)

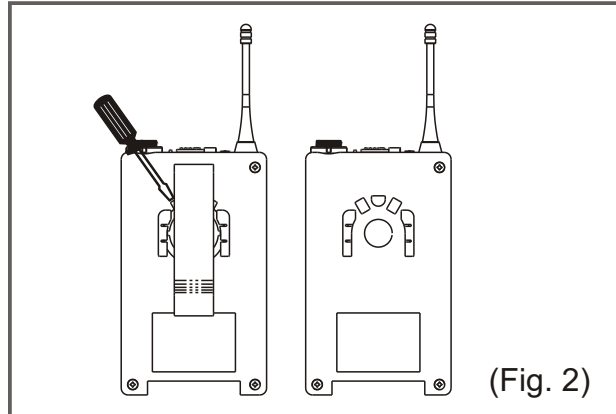
1. AF Input Jack: Connects to a lavalier or headset microphone. (See 5 ways of connection on AF Input Connections)
2. Power Switch: Switch to ON position for operation. Switch to OFF position when not in use.
3. Battery Status Indicator: Indicates the power on / off and battery status.
(a) When power switch is turned on: The LED indicator flashes briefly, indicating normal battery status.
(b) When RED light illuminates at either power on or during usage: The battery level is low, therefore, a new battery replacement is thus necessary.
4. Transmitter Housing: Packages the PCB and battery.
5. ACT Signal Receptor: Receiving ACT signal and adjusting frequency automatically.
6. Gain Control: Adjusts the desirous input gain.
7. GT/MT Level Selector: Switch GT position for electric guitar usage ONLY. Gain Control is irrelevant for "GT". Switch to "MT" for condenser microphone, wired microphone. Gain Control works in "MT" for input sensitivity adjusting.
8. Battery Compartment and Cover: Accommodates one 9 Volt battery(ACT-707TE). Battery Compartment and Cover: Accommodates two 1.5V(AA) batteries(ACT-3T).
9. Transmitting antenna: a 1/4-wave, soft antenna.

Please note; if you have more than 1 wireless receiver in your system, and they are on the same channel band, (Both receivers are 6A, or 6B, or 6C) they must be on different channels. e.g. If you have 2 MRM706A receivers in your MA705PA, or MA707PA, etc, and if they are both set to channel 2, you will have many symptoms of malfunctioning wireless operation. It would be recommended to set them for different channels, at least 2 channels apart. e.g. your first MRM706A receiver set to channel 2, and your second MRM70 receiver set to channel 4 or higher.

BODYPACK TRANSMITTER

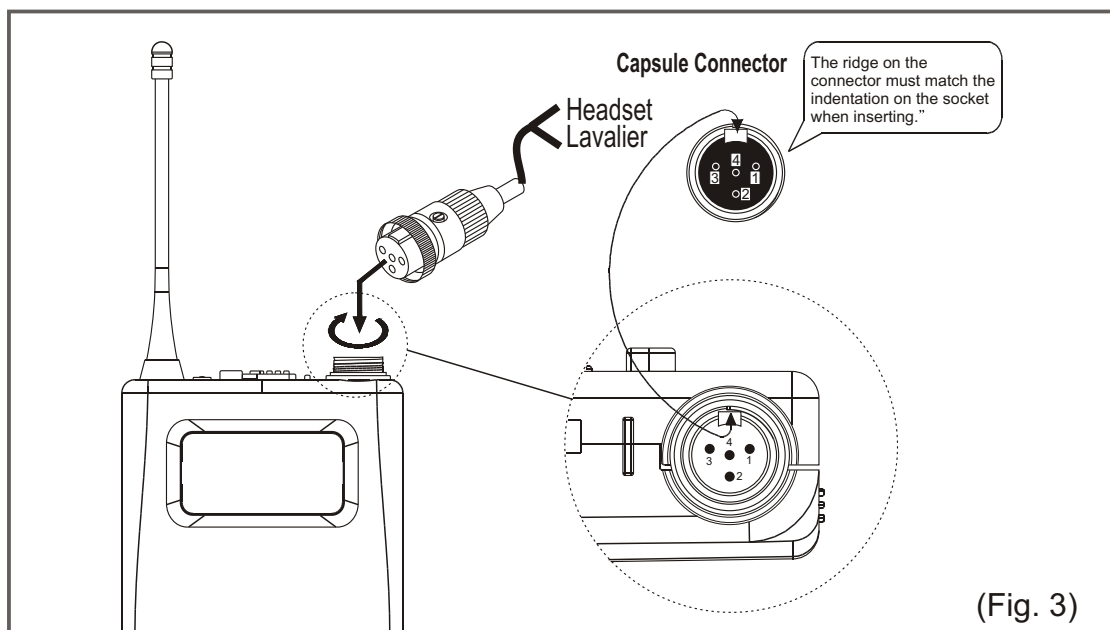
Operating Manual

10. Belt clip: allow user to hold transmitter on the belt. Allow various angel adjustment for the comfort of operation. When not in use, use a Philip (-) screw drive to uninstall.



2. Operating Instructions

1. To adjust volume (6), GT/MT Switch (7), simply push down both snap locks on the sides of battery cover and flip it backwards to expose the adjustment panel.
2. The LED indicator flashes briefly when power on indicating normal battery status. If no flash occurs it has either no battery, the battery is drained or installed incorrectly. Change accordingly.
3. Adjust Gain Control to desired volume. (Gain Control is irrelevant when switch to GT position).
4. Insert capsule module following direction of connector and rotate clockwise until capsule unit is securely tightened.

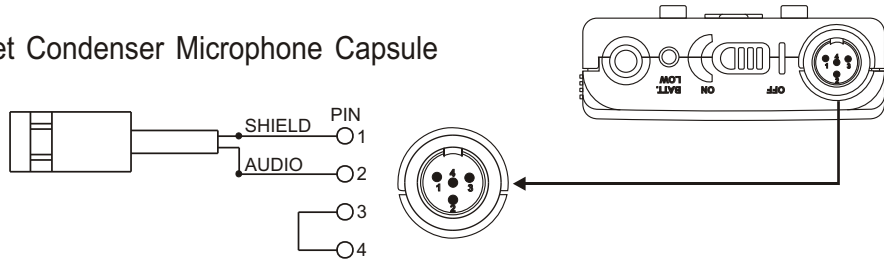


BODYPACK TRANSMITTER

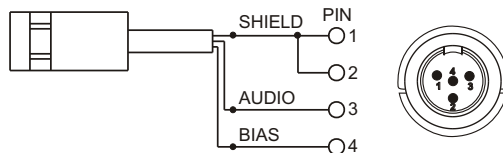
Operating Manual

3. AF 4-pin Input Connection Method

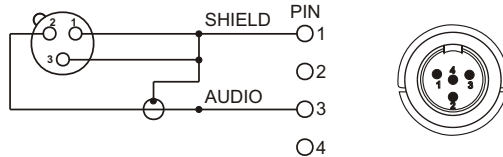
(1) 2-Wire Electret Condenser Microphone Capsule



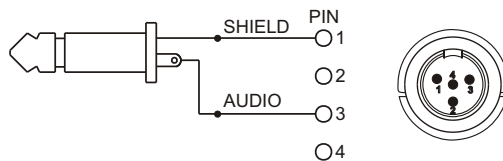
(2) 3-Wire Electret Condenser Microphone Capsule



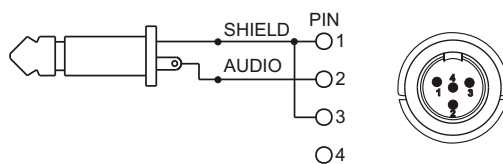
(3) Dynamic Microphone



(4) Electric Guitar



(5) Line-in (Impedance $8K\Omega$ ATT. 10dB)



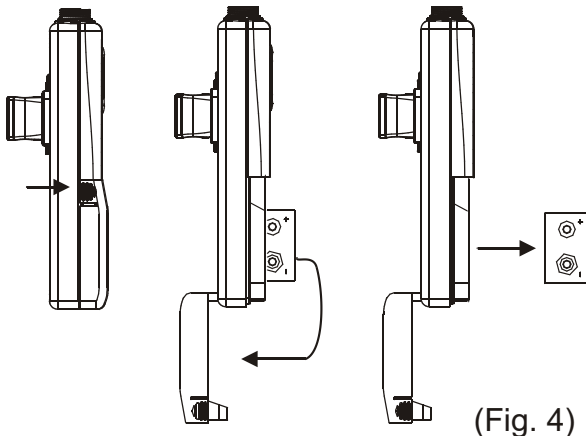
BODYPACK TRANSMITTER

Operating Manual

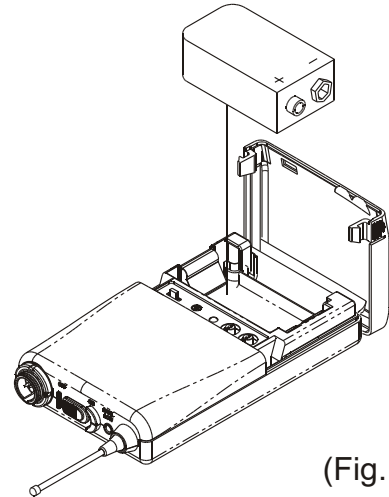
4. Battery Installation

ACT-707TE

1. Pushing down both snap-locks on the sides of battery cover to open battery cover. (Fig. 4).
2. Insert a 9V battery into the battery compartment observing the correct polarity as shown in Fig. 4). Then push up to close the battery compartment as shown in Fig. 4-1).



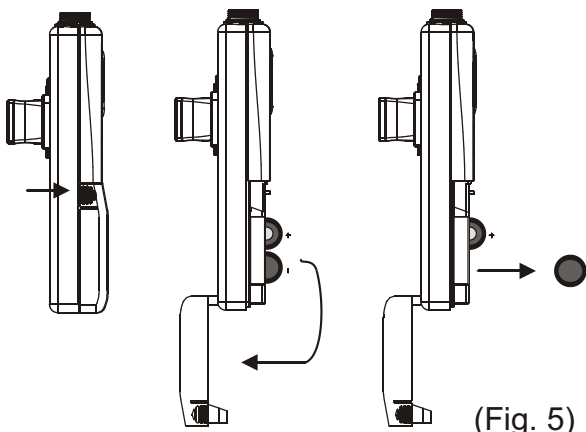
(Fig. 4)



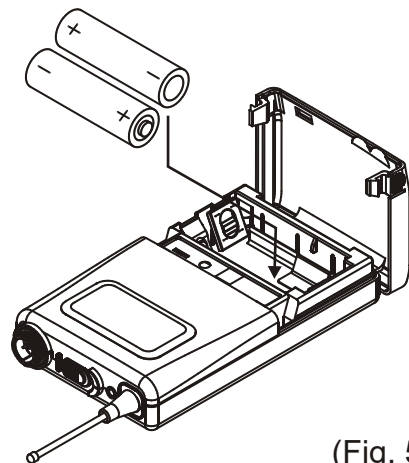
(Fig. 4-1)

ACT-3T

1. Pushing down both snap locks on the sides of battery cover to open battery cover. Take out the batteries. Fig. 5).
2. Insert two 1.5(AA) batteries into the battery compartment according to the correct polarity as shown in Fig. 5). Then push up to close the battery compartment as shown in Fig. 5-1).



(Fig. 5)



(Fig. 5-1)

PS: When the microphone is not in use:

Make sure the power of the microphone is off. If the microphone will not be used for some time, please remove the batteries from the battery compartment to avoid battery leakage and result in damaged battery springs and circuit. If a rechargeable battery was used, take it out and recharge it.

Please note; if you have more than 1 wireless receiver in your system, and they are on the same channel band, (Both receivers are 6A, or 6B, or 6C) they must be on different channels. e.g. If you have 2 MRM706A receivers in your MA705PA, or MA707PA, etc, and if they are both set to channel 2, you will have many symptoms of malfunctioning wireless operation. It would be recommended to set them for different channels, at least 2 channels apart. e.g. your first MRM706A receiver set to channel 2, and your second MRM70 receiver set to channel 4 or higher.

MIPRO

MRM-70 FREQUENCY AGILE,
DIVERSITY RECEIVER MODULE

Instruction Manual

MRM70 Receiver



The MRM-70 is a single channel, frequency agile, wireless microphone receiver module.

MIPRO

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2CE190

Electronics Co., Ltd.

To "pair up" your mic/transmitter to your receiver, they need to "shake hands" with an IR signal. The MRM70 receiver has an IR transmitter and the Mic/transmitters have an IR receiver in them. The IR receiver in the ACT707TE beltpack is behind the battery door. The IR receiver on the handheld mic is at the heel or bottom of the mic. The mic/transmitter IR receiver must face the MRM70 to "pair"

DIVERSITY RECEIVER MODULE

INTRODUCTION

The MRM-70 is a wireless microphone receiver module suitable for installation in MIPRO's MA-705, 707 & 909 portable PA amplifiers. It can also be fitted to other PA amplifiers, mixers, signal processors and karaoke players to provide these devices with frequency agile, wireless reception.

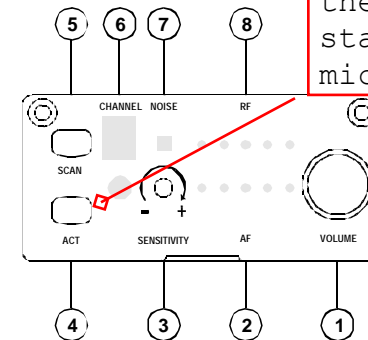
The UHF band and PLL technology are utilized to avoid the often congested VHF band. True diversity and advanced circuitry combine to eliminate signal dropouts and random noise interference. The main features and benefits of the MRM70 are:

1. Press the 'SCAN' button and the receiver will auto-scan and lock on to one of the 16 preprogrammed frequencies.
2. Press the 'ACT' button to automatically upload the receiver frequency to your transmitter.
3. Once the frequency pairing has been set, the data is stored in memory, meaning that the frequency is locked until it is changed by performing the 'ACT' function again, even after powering off.
4. Bright and easy-to-read LED displays indicate the numeric channel number and RF & AF signal strengths.
5. The receiver's sensitivity level can be adjusted to avoid interference.
6. Reliable, true diversity reception with dual "Pilotone & NoiseLock" circuitry prevents interferences.
7. The receiver's output level and dynamic range have been accurately factory calibrated to match the microphone capsule's sensitivity, ensuring optimal performance from the system. (1.5dB tolerance).
8. The modular design allows for easy installation, maintenance and DIY.

DIVERSITY RECEIVER MODULE

1. GLOSSARY

Press and release the "ACT" button to start "Pairing" the mic to the receiver.



- (1) **Receiver Power Switch/Volume Control:** Turns the receiver module on and off. After powering on, the AF LED will flash. Turn the knob clockwise to increase volume.
- (2) **Audio Signal Level Indicator:** Indicates the audio signal level.
- (3) **Sensitivity Adjustment:** Enables you to adjust the receiver's sensitivity to ensure that no spurious noise is heard when there is no transmitter signal present.
- (4) **ACT Button:** Press to setup the transmitter frequency to match the receiver frequency.
- (5) **Scan Button:** Press to select the receiver's frequency and to auto scan to ensure an interference free channel.
- (6) **Channel Indicator:** Display the channel selected for the receiver.
- (7) **Noise Indicator:** Indicates if there is interference present.
- (8) **RF Signal Level Indicator:** Indicates the RF signal strength at the receiver.

Only "pair" one mic and one MRM70 receiver at a time. Turn on one receiver and the mic/transmitter that you would like to "pair up". To pair up the bodypack ATC707TE, open the battery door. The open battery compartment must face the MRM70 receiver. Keeping the mic/transmitter about 6-8" away from the front of the MRM70 receiver, push and release the ACT button on the MRM70 receiver. You will see the red LED on the bodypack flash and will see activity on the MRM70. It takes about 2-4 seconds to pair up. Once you've successfully paired them, the top row of LED's on the MRM70 receiver will light up. Turn off the power on the ACT707TE and the MRM70.

To pair up the handheld mic, ACT707HE with the receiver, follow the steps above but instead of having the open battery door facing the MRM70 receiver, point the heel or bottom of the mic towards the front of the MRM70 receiver. You will see the same activity as you did when pairing the ACT707TE bodypack mic/transmitter.

DIVERSITY RECEIVER MODULE

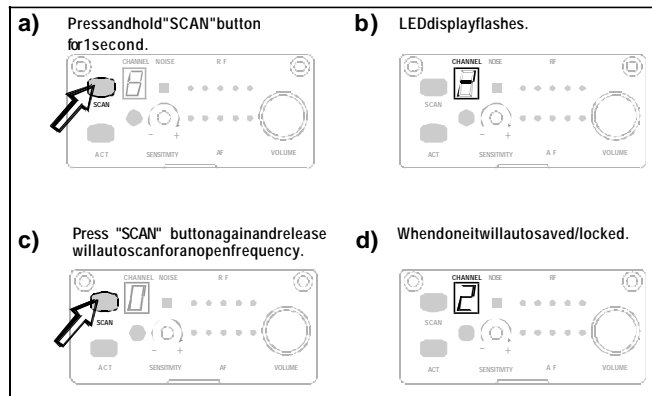
2. FREQUENCY AGILE OPERATION

(1) Overview:

- (a) This system incorporates an advanced PLL synthesized oscillator design and is reprogrammed with 16 user-selectable frequencies.

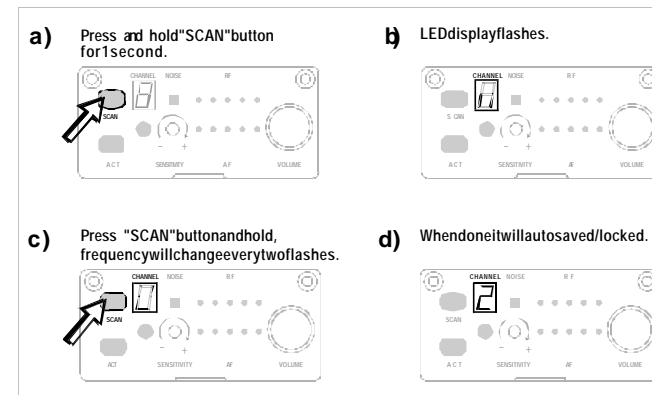
(2) Selecting a Frequency:

- (a) Auto Scanning Frequency Set-up: Hold down the SCAN button (5) for 1 second. Release the button when the numeric LED (6) flashes. It will flash a total of 6 times. To activate the Auto Scan function, press the SCAN button once during the 6 flash sequence. An open frequency will automatically be saved/locked. *Note that the Auto Scan function works only if accessed while the LED is flashing.



DIVERSITY RECEIVER MODULE

- (b) Manual Frequency Set-up: Hold down the SCAN button (5) for 1 second. Release the button when the numeric LED (6) flashes. It will flash a total of 6 times. To manually select any of the 16 preprogrammed frequencies, press the SCAN button and hold it down until the required frequency is selected. This frequency will then automatically be saved/locked.



(3) Change the channel when:

- (a) The existing channel is encountering interference.
 (b) You wish to select different channels for multiple system applications.

Please note; if you have more than 1 wireless receiver in your system, and they are on the same channel band, (Both receivers are 6A, or 6B, or 6C) they must be on different channels. e.g. If you have 2 MRM706A receivers in your MA705PA, or MA707PA, etc, and if they are both set to channel 2, you will have many symptoms of malfunctioning wireless operation. It would be recommended to set them for different channels, at least 2 channels apart. e.g. your first MRM706A receiver set to channel 2, and your second MRM70 receiver set to channel 4 or higher.

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